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09/473,098	12/28/1999	JULIO ESTRADA	LOT919990047US1	9594

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EXAMINER	
SHIN, KYUNG H	
ART UNIT	**PAPER NUMBER**
2143	

DATE MAILED: 10/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/473,098	ESTRADA ET AL.	
	Examiner	Art Unit	
	Kyung H. Shin	2143	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10 July 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-15* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-15* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. Claims **1 - 15** are pending. Claims **1, 3, 9, 10, 13, 15** have been amended. Claims **8, 11, 12, 14** have been cancelled. Independent claims are **1, 3, 8, 9, 10, 13, 15**.

Response to Arguments

2. Applicant's arguments filed 7/10/2006 have been fully considered but they are not persuasive.

09473098 amendment:

Response to Remarks

2.1 Applicant has stated his intentions to reassert his arguments set forth in the previous amendment remarks dated October 10, 2005. Therefore, the Examiner will reiterate the Response to Remarks in the Office Action dated March 9, 2006. Any applicable response from previous Office Actions is hereby incorporated.

A search of prior art using the terms *"collaborative workspace"* indicated that over a hundred patent applications were being processed by the Patent Office by the end of 1998. With the earliest application dating back to 1990, indicating that there were more than a few individuals skilled in the art. Linked lists and hierarchical or tree data structure technologies are much older concepts than collaborative workspace. These three technologies were well known to one skilled in the art in 1999.

In response to applicant's argument, the Examiner never stated that the applicant invented collaborative workspace technology, ACL security technology, or hierarchical or tree data structure (i.e. parent, child, inheritance) technology. By 1999, the necessity for the implementation of security was well known due to multiple attacks on computer systems. And, ACLs (i.e. Access Control Lists) are an integral part of any security implementation. And, most data structures such as used for databases and file systems were hierarchical in nature. In addition, the most popular programming language at that time was built upon the concepts of parent-child object relationships and inheritance. Any combination of these three technologies would have been obvious to one skilled in the art in 1999.

Applicant argues that the stated obviousness combinations are improper. In the last Office Action, each obviousness rejection based on prior art discloses a specific function within the secondary reference, which is combined with the primary reference. In addition, a specific advantage is indicated and cited within the referenced prior art, which is the motivation for the combination. This requirement is based on the MPEP.

The test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in

the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981). Furthermore, in response to applicant's arguments against the reference individually, one cannot show nonobviousness by attacking references individually where rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

2.2 Applicant argues that the referenced prior art does not disclose " ... *membership in an access control list control on a specific subroom in collaborative space is limited to members included in the access control list for the collaborative space ...". (see Remarks Page 20, Lines 27-30)*

The Salas (6,233,600) prior art discloses the capability for a collaborative workspace. (see Salas col. 5, lines 8-11; col. 12, lines 7-22; col. 3, lines 49-51; col. 6, lines 52-58: access control, collaborative workspace) The Salas (6,233,600) and Maurille (6,484,196) prior art combination discloses a hierarchical (i.e. tree, parent-child) data structure utilizing forward and backward pointers. (see Maurille col. 16, lines 17-22; col. 8, lines 33-38: pointers) The Salas (6,233,600) and Cutler (5,129,083) prior art combination discloses an access control mechanism utilizing doubly linked lists. (see Cutler col. 2, lines 27-30; col. 22, lines 65-67; col. 5, lines 21-25: access control list, doubly linked lists)

The scope of applicant's invention is as a system and in independent claims 13 and 15 as a software program, which is generated at the conclusion

of a software development effort. The concept of an Access Control List (ACL) is a standard security concept within software development and is well known to one skilled in the art. It designates the access rights a particular user has concerning a particular object (see references below). This particular object can be any object, such as a virtual room within a collaborative workspace. The access control list contains fields, which designates different combinations of access rights to an object for a particular user. Also, the concept of a linked list (i.e. a doubly linked list) is well known to one skilled in the art. A linked list is an object, which incorporates a pointer designating another object (i.e. a room). Doubly linked lists designates an object with pointers in a forward and a backward direction. The combined disclosures of Salas (6,233,600), Maurille (6,484,196), and Cutler (5,129,083) and its feature (i.e. limitations) combinations disclose the applicant's invention. Security and data structures are standard concepts implemented within any software development effort, and these issues would be addressed and resolved in any software development effort including the software for the applicant's invention.

After an extensive search and analysis of the existing prior art (Salas: 6,233,600, Maurille: 6,484,196, and Cutler: 5,129,083), the examiner's initial selection of the above stated prior art stands, and the above stated prior art discloses all claims and limitations of applicant's invention. The referenced prior art discloses the applicant's invention and all its limitations.

References:

(http://www.answers.com/topic/access-control-list)

(http://searchsecurity.techtarget.com/sDefinition/0,,sid14_gci213757,00.html)

(http://searchsecurity.techtarget.com/sDefinition/0,,sid14_gci213757,00.html)

2.3 Applicant argues that the examiner's conclusion of obviousness is based upon improper hindsight reasoning. It must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See In re McLaughlin, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

2.4 The Examiner has considered applicant's additional remarks concerning collaborative workspace environments utilizing linked lists, access control lists, hierarchical or tree data structures, and the remarks were not persuasive.

After an additional analysis of applicant's invention, remarks, and a search of the available prior art, it was determined that the current set of prior art consisting of Salas (6,233,600), Maurille (6,484,196), and Cutler (5,129,083), disclose applicant's invention including the disclosures in Remarks dated July 8, 2006. Therefore, the rejection of claims 1-15 is proper and maintained herein.

Claim Rejection – 35 USC § 103

3. **Claims 1 - 15** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Salas** (US Patent No. 6,233,600) in view of **Maurille** (US Patent No. 6,484,196) and further in view of **Cutler et al.** (US Patent No. 5,129,083).

Regarding Claim 1, Salas discloses a collaboration space created as a web site by a user at a browser including a plurality of rooms in a hierarchical structure with access control list control on rooms and access control list control on forward pointers to child rooms (see Salas col. 2, lines 4-11; col. 2, 29-31: web site server, enable clients to interact within collaborative workspace; col. 3, lines 49-51: plurality of rooms with hierarchical pointers and access mechanism), comprising:

c) said readers field being a members object for identifying members authorized to access said room and for each member a level of authorization. (see Salas col. 13, lines 32-34; col. 14, lines 37-39: object access control (readers field) mechanism)

a) Salas discloses wherein said web site including a database and an access control list for users authorized to access said room and a notes, each subroom being an independent entity belonging to said place, said place having a first data note including a directory of members of said place. (see Salas col. 2, lines 4-11; col. 2, 29-31: web site server, enable clients to interact within collaborative workspace; col. 3, lines 49-51; col. 13, lines 32-34) Salas does not specifically

disclose a database system for management of collaborative space. However, Maurille discloses a place comprising a plurality of subrooms, (see Maurille col. 6, lines 44-57: database system for member, message information) each subroom within said place having a data note associated therewith containing an access control list of members selected exclusively from said directory of members by a member of said place having manager authority with respect to said subroom for specifying users of said place authorized to access said subroom, and Cutler specifically discloses the usage of object oriented technology utilizing access control list techniques for collaborative space management (see Cutler col. 2, lines 27-30; col. 22, lines 65-67; col. 5, lines 21-25: objects provide access control lists controlling access to objects, object inheritance- child has equal or less access capabilities of parent).

b) Salas discloses a readers field for providing access control list type control on said forward pointer and a child room and subroom, each subroom being an independent entity belonging to said place, said place having a first data note including a directory of members of said place. (see Salas col. 13, lines 32-34; col. 14, lines 37-39) Salas does not specifically disclose a database system for collaborative workspace. However, Maurille discloses forward and reverse pointers for linking said subrooms (see Maurille col. 16, lines 17-22; col. 8, lines 33-38: to/from (forward/reverse) pointers), each said forward pointer including indicia specifying the address location of the entity forming said child room (see Maurille col. 6, lines 44-57: database system for member, message information).

d) Salas discloses a document readers field for a document containing data in said subroom being a members object for identifying a subset of members of said place authorized to access a subroom who are also authorized to access said document. (see Salas col. 13, lines 32-34: readers field), and Cutler specifically discloses the utilization of object oriented techniques such as access control list techniques for collaborative space management (see Cutler col. 2, lines 27-30; col. 22, lines 65-67; col. 5, lines 21-25: objects provide access control lists controlling access to objects, object inheritance- child has equal or less access capabilities of parent).

e) Salas discloses wherein said collaboration space comprising a hierarchy of rooms, each room being a place in collaboration space including said directory of members; and Cutler discloses wherein said directory of members, said access control list of members, and said readers field selectively providing increased, decreased, and maintained access to a child place in collaboration space, with access at any level of authority to a child place enabled only for those authorized to access a corresponding parent place, and Maurille discloses wherein whether a link to a child place will be enabled for a specific user in its corresponding parent place. (see Salas col. 5, lines 8-11; col. 12, lines 7-22: collaborative workspace virtual rooms) and (see Maurille col. 16, lines 17-22; col. 8, lines 33-38: pointers, hierarchical structure) and (see Cutler col. 2, lines 27-30; col. 22, lines 65-67; col. 5, lines 21-25: access control lists, doubly linked lists)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Salas to operate a collaborative workspace for message communications between members as taught by Maurille, and to modify Salas to enable utilization of standard object oriented techniques for collaborative space processing such as pointers to objects containing access control lists (ACLs) and controlling access to objects as taught by Cutler. One of ordinary skill in the art would be motivated to employ Maurille in order to optimize message processing and display capabilities for a networked collaborative communications environment. (see Maurille col. 6, lines 13-16: " *... Message mode allows a user to interact with a private bulletin board in which his messages (i.e., any message involving the user as sender or recipient) are instantly available and displayed with full threading information ...* "), and to employ Cutler in order to efficiently enhance security by providing limited visibility of computer resources and protecting data integrity. (see Cutler col. 1, lines 47-53: " *... access control should also provide limited "visibility" of computer resources ... unauthorized user cannot obtain information about another user ... protect data integrity ... protect against simultaneous accesses by different authorized processes ...* ")

Regarding Claim 2, Salas discloses the collaboration space of claim 1, said levels of authorization including manager, author, and reader. (see Salas col. 13, lines 27-37; col. 14, lines 44-54: authorization levels (manager, reader, coordinator) are managed to allow create, modify, edit procedures)

Regarding Claim 3, Salas discloses a collaboration space created as a web site by a user at a browser, comprising:

b) a member directory for said place identifying users authorized to enter said place; (see Salas col. 2, lines 4-11; col. 2, 29-31: web site server, enable clients to interact within collaborative workspace; col. 3, lines 49-51: member information and access controls)

c) each said room comprising one or more pages, and for each said room a members object for identifying a subset of members of said place authorized to access said room and for each member a level of authorization, each member of said subset of members being a user authorized in said member directory to enter said place; (see Salas col. 3, lines 49-51; col. 14, lines 39-44: member information and access levels)

a) Salas discloses a plurality of rooms with pointers in a hierarchical structure for a collaborative workspace. (see Salas col. 3, lines 49-51) Salas does not specifically mention forward and backward pointers. However, Maurille discloses objects (rooms) linked by forward and backward pointers. (see Maurille col. 16, lines 17-22; col. 8, lines 33-38; pointers with to/from (forward/backward) pointers for parent/child navigation)

d) Salas discloses a readers field for providing access control list control on said forward pointer, said readers field for identifying those members of said subset of

members of said place authorized to access a parent room that are also authorized to access a child room and a database for said rooms including a parent room and a child room structure for collaborative workspace. (see Salas col. 3, lines 49-51; col. 13, lines 32-34) Salas does not disclose forward and backward pointers. However, Maurille discloses said pointers comprising forward and backward pointers for enabling the security of each said room to be independently managed, said forward pointers including indicia identifying said child room, indicia specifying the address location of the database forming said child room (see Maurille col. 6, lines 44-57: database system for member, message information), and Cutler specifically discloses the utilization of object oriented techniques such as access control list techniques for collaborative space management (see Cutler col. 2, lines 27-30; col. 22, lines 65-67; col. 5, lines 21-25: objects provide access control lists controlling access to objects, object inheritance- child has equal or less access capabilities of parent).

e) Salas discloses wherein said collaboration space comprising a hierarchy of rooms, each room being a place in collaboration space including said directory of members; and Cutler discloses wherein said directory of members, said access control list of members, and said readers field selectively providing increased, decreased, and maintained access to a child place in collaboration space, with access at any level of authority to a child place enabled only for those authorized to access a corresponding parent place, and Maurille discloses wherein whether a link to a child place will be enabled for a specific user in its corresponding

parent place. (see Salas col. 5, lines 8-11; col. 12, lines 7-22: collaborative workspace virtual rooms) and (see Maurille col. 16, lines 17-22; col. 8, lines 33-38: pointers, hierarchical structure) and (see Cutler col. 2, lines 27-30; col. 22, lines 65-67; col. 5, lines 21-25: access control lists, doubly linked lists)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Salas to operate a collaborative workspace for message communications between members as taught by Maurille, and to modify Salas to enable utilizing standard object oriented techniques such as access control lists (ACLs) controlling access to objects for collaborative space management as taught by Cutler. One of ordinary skill in the art would be motivated to employ Maurille in order to optimize message processing and display capabilities for a networked collaborative communications environment (see Maurille col. 6, lines 13-16), and to employ Cutler in order to efficiently enhance security by providing limited visibility of computer resources and protecting data integrity (see Cutler col. 1, lines 47-53).

Regarding Claim 4, Salas discloses the collaboration space of claim 3, said readers field including an access authority for each reader authorized to enter said room selectively as manager, author or manager. (see Salas col. 7, lines 8-10 col. 14, lines 39-54: readers field access control information for room with different access levels)

Regarding Claim 5, Salas discloses the collaboration space of claim 3, each said forward pointer being a secure pointer by carrying the same level of security as the child room to which it points. (see Salas col. 8, lines 12-16; col. 6, lines 52-56; col. 7, lines 8-10: room template controls room generation, parent-child relationship, child inherits characteristics of parent (including access capabilities)) Salas does not specifically disclose the access control level for a child room is the same or less than the access control level of a parent room. However, Cutler discloses the same level of security as the child room to which it points. (see Cutler col. 2, lines 27-30; col. 22, lines 65-67; col. 5, lines 21-25: objects provide access control lists controlling access to objects, object inheritance- child has equal or less access capabilities of parent)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Salas to enable utilizing standard object oriented techniques such as access control lists (ACLs) controlling access to objects for collaborative space management as taught by Cutler. One of ordinary skill in the art would be motivated to employ Cutler in order to efficiently enhance security by providing limited visibility of computer resources and protecting data integrity. (see Cutler col. 1, lines 47-53)

Regarding Claim 6, Salas discloses the collaboration space of claim 5, each said forward pointer carrying in said readers field the same security as that of the subroom to which it points. (see Salas col. 8, lines 12-16; col. 6, lines 52-56; col. 7, lines 8-10: room

template controls room generation, parent-child relationship, child (subroom) inherits characteristics of parent (including access capabilities))

Regarding Claim 7, Salas discloses the collaboration space of claim 6, further comprising a display for presenting to a specific user viewing a parent room a listing of its subrooms, said listing including for said specific user only those subrooms for which said readers field in said forward pointer includes an entry authorizing access by said specific user. (see Salas col. 12, lines 7-22: user interface for child (subroom) display)

Regarding Claim 8, Salas discloses an access control system for controlling user access to forms and documents a collaboration space organized in a hierarchical structure of parent rooms and child rooms containing said forms and documents, comprising:

a) an access control list for specifying users who can are members of said collaboration space; (see Salas col. 14, lines 31-36: only specific users can access room based on access permissions)

b) for users authorized to access said collaboration space, said access control list further specifying access levels and roles determining the specific actions said users are authorized to perform, said roles including reader, author, and manager; (see Salas col. 14, lines 37-44: access control level determines user's role)

c) a form selectively including a form access list; (see Salas col. 13, lines 27-34: objects (forms) contain access control (readers) field)

d) a room in said collaboration space including at least one document created from said form; (see Salas col. 3, lines 49-51; col. 13, lines 46-51: document information linked to rooms)

f) said form access list identifying a subset of users who are members of said collaboration space who are authorized to read documents created from said form; (see Salas col. 14, lines 46-50: access permissions specify users that can read objects (documents))

g) each said forward pointer to a document including indicia identifying said document indicia specifying the address location of said document and a readers field for providing access control list control on said forward pointer including a document access field selectively including for each user authorized to access said document indicia specifying whether said authorized user can read or modify said document; users identified in any said form access list for said form from which said document was created being included in said readers field; (see Salas col. 13, lines 32-34; col. 14, lines 44-54: object (i.e. readers) access field, capability to read and/or modify linked documents)

h) entries in said readers field specifying whether a link to a child place is enabled in its parent place and granting authorization to an individual user equal to or less than the authorization for said individual user in said access control list; (see

Salas col. 13, lines 32-34: objects (rooms) indicate a field (readers field) with access control parameters)

i) entries in said authors field selectively granting authorization to a user authorized as an author in said access control list to edit a document which said author creates. (see Salas col. 14, lines 46-50: access permissions specify users that can edit objects (documents))

e) Salas discloses a hierarchical structure for rooms linked by pointers. Salas does not specifically disclose a forward pointer. However, Maurille discloses a forward pointer linking said form to said document and a reverse pointer linking said document, back to said form; (see Maurille col. 16, lines 17-22: to/from (forward/backward) pointers)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Salas to operate a collaborative workspace for message communications between members as taught by Maurille, and to modify Salas to enable utilizing standard object oriented techniques such as access control lists (ACLs) controlling access to objects for collaborative space management as taught by Cutler. One of ordinary skill in the art would be motivated to employ Maurille in order to optimize message processing and display capabilities for a networked collaborative communications environment (see Maurille col. 6, lines 13-16), and to employ Cutler in order to efficiently enhance security by providing limited

visibility of computer resources and protecting data integrity (see Cutler col. 1, lines 47-53).

Regarding Claim 9, 13, Salas discloses a method for controlling access to rooms within a collaboration place created as a web site by a user at a browser, comprising the steps of:

a) maintaining for said collaboration place an access control list identifying those users authorized to enter said place; (see col. 2, lines 4-11; col. 2, 29-31: web site server, enable clients to interact within collaborative workspace; Salas col. 3, lines 49-57: member information and access controls)

c) displaying a parent room to a specific user, said parent room including a list of children rooms for which said readers fields on said forward pointers authorize said specific user access. (see Salas Figure 1; col. 6, lines 39-55: display interface for parent room)

b) Salas discloses a readers field for providing access control list control on said forward pointer, said readers field exclusively specifying a subset of said users authorized to enter said place. Salas does not specifically disclose forward/backward pointers or a database system for the collaborative workspace. However, Maurille discloses said forward pointers including indicia identifying a child room, indicia specifying the address location of the database forming said child room; (see Maurille col. 16, lines 17-22; col. 8, lines 33-38; pointers with

to/from (forward/backward) pointers for parent/child navigation: Maurille col. 6, lines 44-57: database system for member, message information), and Cutler discloses parent/child object access control list inheritance. (see Cutler col. 2, lines 27-30; col. 22, lines 65-67; col. 5, lines 21-25: objects provide access control lists controlling access to objects, object inheritance- child has equal or less access capabilities of parent)

e) Salas discloses wherein said collaboration space comprising a hierarchy of rooms, each room being a place in collaboration space including said directory of members; and Cutler discloses wherein said directory of members, said access control list of members, and said readers field selectively providing increased, decreased, and maintained access to a child place in collaboration space, with access at any level of authority to a child place enabled only for those authorized to access a corresponding parent place, and Maurille discloses wherein whether a link to a child place will be enabled for a specific user in its corresponding parent place. (see Salas col. 5, lines 8-11; col. 12, lines 7-22: collaborative workspace virtual rooms) and (see Maurille col. 16, lines 17-22; col. 8, lines 33-38: pointers, hierarchical structure) and (see Cutler col. 2, lines 27-30; col. 22, lines 65-67; col. 5, lines 21-25: access control lists, doubly linked lists)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Salas to operate a collaborative workspace for message communications between members as taught by Maurille, and to modify

Salas to enable utilizing standard object oriented techniques such as access control lists (ACLs) controlling access to objects for collaborative space management as taught by Cutler. One of ordinary skill in the art would be motivated to employ Maurille in order to optimize message processing and display capabilities for a networked collaborative communications environment (see Maurille col. 6, lines 13-16), and to employ Cutler in order to efficiently enhance security by providing limited visibility of computer resources and protecting data integrity (see Cutler col. 1, lines 47-53).

Regarding Claim 10, Salas discloses a method for creating a child room within a collaboration place data base created as a web site by a user at a browser, comprising the steps of:

a) providing for said collaboration place data base a first access control list identifying users authorized to access said data base; (see Salas col. 2, lines 4-11; col. 2, 29-31: web site server, enable clients to interact within collaborative workspace; col. 13, lines 32-34; col. 14, lines 31-36: access control mechanism to determine authorized user access)

b) providing for said child room a back pointer to a parent room; (see Salas col. 6, lines 39-55: backward pointer to parent) and

c) Salas discloses a readers field indicating authorized access to a room for providing a second access control list specific to said forward pointer and

providing at said parent room for said child room a forward pointer from said parent room to said child room. (see Salas col. 13, lines 32-34; col. 14, lines 37-39: object access control) Salas does not specifically disclose a database system for collaborative space. However, Maurille discloses said pointer including indicia identifying said child room, indicia specifying the address location of the database forming said child room. (see Maurille col. 6, lines 44-57: database system for member, message information)

d) initially including in said readers access field for a child room created from a form users identified in a form access list identifying users authorized to read rooms created from said form; (see Salas col. 13, lines 32-34; col. 14, lines 37-39: object access control (i.e. readers field) mechanism for controlling access to objects)

e) limiting reader access in said readers access field to said child room for a specific user to no more than the access granted said specific user in said first access control list (see Salas col. 13, lines 32-34; col. 14, lines 37-39: object access control (i.e. readers field) mechanism for controlling access to objects), and

f) Salas discloses wherein said collaboration space comprising a hierarchy of rooms, each room being a place in collaboration space including said directory of members; and Cutler discloses wherein said directory of members, said access control list of members, and said readers field selectively providing increased, decreased, and maintained access to a child place in collaboration space, with access at any level of authority to a child place enabled only for those authorized

to access a corresponding parent place, and Maurille discloses wherein whether a link to a child place will be enabled for a specific user in its corresponding parent place. (see Salas col. 5, lines 8-11; col. 12, lines 7-22: collaborative workspace virtual rooms) and (see Maurille col. 16, lines 17-22; col. 8, lines 33-38: pointers, hierarchical structure) and (see Cutler col. 2, lines 27-30; col. 22, lines 65-67; col. 5, lines 21-25: access control lists, doubly linked lists)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Salas to operate a collaborative workspace for message communications between members as taught by Maurille, and to modify Salas to enable utilizing standard object oriented techniques such as access control lists (ACLs) controlling access to objects for collaborative space management as taught by Cutler. One of ordinary skill in the art would be motivated to employ Maurille in order to optimize message processing and display capabilities for a networked collaborative communications environment (see Maurille col. 6, lines 13-16), and to employ Cutler in order to efficiently enhance security by providing limited visibility of computer resources and protecting data integrity (see Cutler col. 1, lines 47-53).

Regarding Claim 15, Salas discloses a computer program product for controlling access to rooms within a collaboration place created as a web site by a user at a browser. However, Cutler disclose a computer program product comprising:

a) a computer readable medium; (see Salas col. 2, lines 4-11; col. 2, 29-31: web site server, enable clients to interact within collaborative workspace; col. 6, lines 57-63: software (i.e. instructions) to implement collaborative management system)

b) a first program instructions for maintaining for said collaboration a first access control list identifying those users authorized to enter said place; (see Salas col. 3, lines 49-57; col. 6, lines 57-63: member information and access controls, instructions)

c) second program instructions for providing in a child room second access control list identifying a subset of those user authorized to enter said place who are also authorized to enter said child parent room with manager, author, or user access; (see Salas col. 13, lines 32-34; col. 14, lines 44-54; col. 6, lines 57-63: access levels for objects (i.e. rooms), instructions)

e) fourth program instructions for displaying a parent room to a specific user, said parent room including on said forward pointers a list of children rooms for which said readers fields authorize said specific user access; and wherein said first, second, third, and fourth program instructions are recorded on said computer readable medium. (see Salas Figure 1; col. 6, lines 39-55; col. 6, lines 57-63: display interface for parent room, instructions)

d) Salas disclose an access control (readers) field with pointers linking rooms and providing a third access control list on said forward pointer, said third access

control list providing access to said child room for those members who are included in said second access control list who are also authorized to access said child room. (see Salas col. 13, lines 32-34: object (i.e. room, pointer) access control mechanism) Salas does not specifically disclose forward and reverse (i.e. double-linked) pointers. However, Maurille discloses providing forward and reverse pointers linking said parent room with a child room in a double-linked list. (see Maurille col. 16, lines 17-22; col. 8, lines 33-38; pointers with to/from (i.e. forward/backward) pointers for parent/child navigation; col. 6, lines 44-57: database system for member, message information), and Cutler specifically discloses the usage of object oriented technology such as access control list techniques for collaborative space management (see Cutler col. 2, lines 27-30; col. 22, lines 65-67; col. 5, lines 21-25: objects provide access control lists controlling access to objects, object inheritance- child has equal or less access capabilities of parent).

e) Salas discloses wherein a fifth program instructions establishing said collaboration space comprising a hierarchy of rooms, each room being a place in collaboration space including said directory of members; and Cutler discloses wherein said directory of members, said access control list of members, and said readers field selectively providing increased, decreased, and maintained access to a child place in collaboration space, with access at any level of authority to a child place enabled only for those authorized to access a corresponding parent place, and Maurille discloses wherein whether a link to a child place will be

enabled for a specific user in its corresponding parent place. (see Salas col. 5, lines 8-11; col. 12, lines 7-22: collaborative workspace virtual rooms) and (see Maurille col. 16, lines 17-22; col. 8, lines 33-38: pointers, hierarchical structure) and (see Cutler col. 2, lines 27-30; col. 22, lines 65-67; col. 5, lines 21-25: access control lists, doubly linked lists)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Salas to operate a collaborative workspace for message communications between members as taught by Maurille, and to modify Salas to enable utilizing standard object oriented techniques such as access control lists (ACLs) controlling access to objects for collaborative space management as taught by Cutler. One of ordinary skill in the art would be motivated to employ Maurille in order to optimize message processing and display capabilities for a networked collaborative communications environment (see Maurille col. 6, lines 13-16), and to employ Cutler in order to efficiently enhance security by providing limited visibility of computer resources and protecting data integrity (see Cutler col. 1, lines 47-53).

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kyung H. Shin whose telephone number is (571) 272-3920. The examiner can normally be reached on 9:30 am - 6 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David A. Wiley can be reached on (571) 272-3923. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

KHS
Kyung H Shin
Patent Examiner
Art Unit 2143

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September 27, 2006

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